

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 010454W0	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/US 02/ 33928	International filing date (<i>day/month/year</i>) 16/10/2002	(Earliest) Priority Date (<i>day/month/year</i>) 18/10/2001
Applicant QUALCOMM INCORPORATED		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of **4** sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :
 - contained in the international application in written form.
 - filed together with the international application in computer readable form.
 - furnished subsequently to this Authority in written form.
 - furnished subsequently to this Authority in computer readable form.
 - the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
 - the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. **Certain claims were found unsearchable** (See Box I).

3. **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

- the text is approved as submitted by the applicant.
- the text has been established by this Authority to read as follows:

MULTIPLE-ACCES HYBRID OFDM-CDMA SYSTEM WITH FREQUENCY-DOMAIN SPREADING

5. With regard to the **abstract**,

- the text is approved as submitted by the applicant.
- the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

- as suggested by the applicant.
- because the applicant failed to suggest a figure.
- because this figure better characterizes the invention.

3 _____

None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 02/33928

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04L5/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04L H04B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 128 592 A (NTT DOCOMO INC) 29 August 2001 (2001-08-29) page 1, line 7-13 page 6, line 45 -page 8, line 57 page 10, line 45 -page 11, line 11; figures 2-4,18,21	1,4-18, 20,21, 23, 25-28, 35,36, 38-42, 44-48
Y	---- -/-	2,3,19, 22,24, 29-34, 37,43

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

° Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the international search report

31 January 2003

26/02/2003

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 02/33928

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>STIRLING-GALLACHER R A ET AL: "Performance of a OFDM-CDMA system with orthogonal convolutional coding and interference cancellation" VEHICULAR TECHNOLOGY CONFERENCE, 1997, IEEE 47TH PHOENIX, AZ, USA 4-7 MAY 1997, NEW YORK, NY, USA, IEEE, US, 4 May 1997 (1997-05-04), pages 860-864, XP010228965 ISBN: 0-7803-3659-3 page 860 -page 861; figures 1,2 ---</p>	1,4-18, 20,21, 23, 25-28, 35,36, 38-42, 44-48
Y	<p>US 5 559 790 A (DOI NOBUKAZU ET AL) 24 September 1996 (1996-09-24)</p> <p>column 1, line 9 - line 14; figures 1,2,4 column 2, line 12 -column 4, line 19 column 7, line 18 -column 8, line 50 ---</p>	2,3,19, 22,24, 31-34, 37,43
Y	<p>WO 01 20840 A (FRANCE TELECOM ;HELARD JEAN FRANCOIS (FR); MITSUBISHI ELECTRIC COR) 22 March 2001 (2001-03-22) abstract page 1, line 8 - line 12 page 2, line 14 -page 3, line 6 page 5, line 15 -page 7, line 1; figures 1,2 ---</p>	29,30
A	<p>TOMBA L ET AL: "DLINK DETECTION SCHEMES FOR MC-CDMA SYSTEMS IN INDOOR ENVIRONMENTS" IEICE TRANSACTIONS ON COMMUNICATIONS, INSTITUTE OF ELECTRONICS INFORMATION AND COMM. ENG. TOKYO, JP, vol. E79B, no. 9, 1 September 1996 (1996-09-01), pages 1351-1360, XP000636076 ISSN: 0916-8516 page 1351 -page 1355; figures 1,2 -----</p>	1-48

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 02/33928

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
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			EP	1221219 A1	10-07-2002
			WO	0120840 A1	22-03-2001